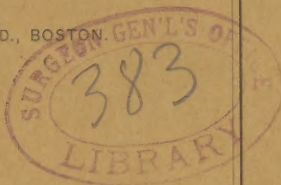


Roeth, (A. G.)

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A Report of Ten Cases of Phthisis
treated with Gaseous Enemata.

BY A. GASTON ROETH, M. D., BOSTON.



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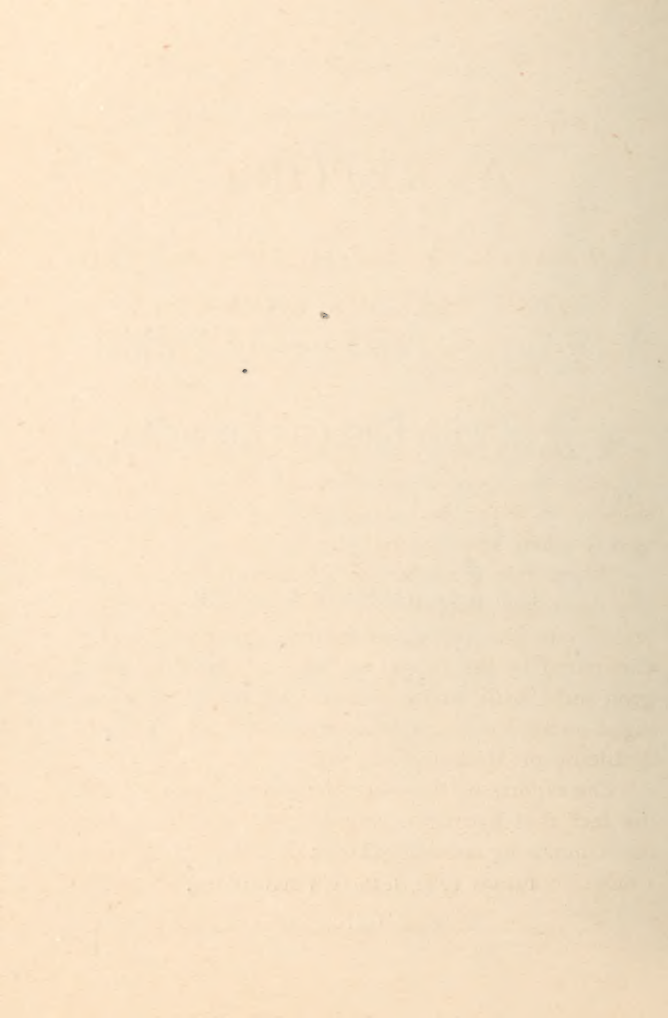
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A REPORT

—OF—

TEN CASES OF PHTHISIS TREATED WITH GASEOUS ENEMATA.

BY A. GASTON ROETH, M.D., BOSTON.

A VAST field for clinical investigation and research was opened to us when Claude Bernard showed in 1857¹ the action of toxic and medicinal agents when administered per rectum.

When this great teacher demonstrated the fact that hydrogen sulphide, $H_2 S$, could be easily injected into the veins and rectum, afterwards to be eliminated by the lungs, he was followed by Bergeon and Cornil, whose practical experiments, covering a number of years, were reported to the French Academy of Medicine in 1886.

The reports of these gentlemen well established the fact that hydrogen sulphide, when carried into the economy by means of carbon dioxide, CO_2 , played a most important role in its effects upon pulmonary

1 Lecons sur les substances toxiques and medicamenteuses.

disease of acute and chronic character, and especially under conditions where pulmonary suppuration and co-existing septicæmia were prominent and alarming symptoms.

These latter experiments were but the forerunners of many others calculated to place the treatment of pulmonary disease, and especially of tubercular phthisis, by the gaseous enemata, upon a sound and practical basis. How far they have succeeded I shall endeavor to show from the following ten cases, and as few statistics have as yet been offered the profession, although the system has been in use for some time at the Hospital of the University of Philadelphia, German Hospital and Home for Consumptives, I feel at liberty to give here the result of my observations in such shape that you may formulate your own conclusions.

The cases now under consideration were taken from the Boston Dispensary, where a careful diagnosis was primarily made by Dr. John Dixwell, their local lesions well defined, each patient carefully weighed and his general condition recorded. Their sputa were stained and examined, the number of bacilli found classified in accordance with Gaffky's scale, now accepted by bacteriologists as a standard of measurement for this bacillus. The same ground was gone over at the end of one month's treatment.

I desire here to express my grateful thanks to Dr. E. W. Cushing, whose kindness in re-examining the specimens of sputa, both at the beginning and end of the treatment, leaves no shadow of doubt as to the correctness of each particular case classified.

It will be noticed that in spite of the bad hygienic surroundings in which these patients lived, every one apparently without exception destitute, yet, notwithstanding the unfavorable atmospheric conditions, the prevailing winds, easterly and cold, and all orthodox advice and medication having been suspended, and a steady and perceptible amelioration has been observed in each and every instance. So far as the practical administration of the gas, its mode of preparation or quantity used is concerned, I have little to add to what has already appeared in the many articles heretofore published, both in the secular and medical journals, with the exception that my preference in natural sulphur waters is for the Ypsilanti spring of Michigan, as this water contains 21.0786 cubic inches per gallon of sulphuretted hydrogen, both liquid and free, more than any other that I know of; my next choice being the Blue Lick of Virginia, which contains 10 per cent. No bad effects have been noted, an overdose of the gas seems impossible, and no intestinal colic was produced when the quantity used was slowly injected. The time most

favorable for the two daily enemata was found to be before meals, morning and afternoon.

CASE I. Julia N., aged thirty-one. No family history.

At Beginning of Treatment.	End of One Month's Treatment.
Weight 110 lbs.	Weight 114½ lbs.
Temp. 100°.	Temp. normal.
Pulse 120.	Pulse 78.
Respiration ratio .26.	Respiration ratio normal.
Expectoration copious, and mucopurulent.	Expectoration none.
Night sweats.	No night sweats.
Appetite poor.	Appetite good.
Bacilli, Gaffky's scale No. 2.	Bacilli, Gaffky's scale No. 1.
Cavity right infra clavicular space and right apex.	Broncho vesicular respiration decreased.

She states that she does not cough once during the night, spits but once in a while, is feeling splendid, better than for years. Sleeps all night; eats well.

CASE II. James P., aged forty-two. No Family history.

At Beginning of Treatment.	End of One Month's Treatment.
Weight 116½ lbs	Weight 118½ lbs.
Temp. 98°.	Temp. 98°.
Pulse 86.	Pulse 86.
Respiration ratio 19.	Respiration ratio normal.
Expectoration copious, yellow and white.	Expectoration normal.
No night sweats.	No night sweats.
Appetite fair only.	Appetite good.
Bacilli, Gaffky's scale No. 1.	Bacilli, Gaffky's scale No. 1.
Cavity left apex front and back.	Small area of sibilant rales over left apex on expiration.
First stage phthisis.	

He states that he has improved daily. His appetite is good ; sometimes spits but once a day. Feels a great deal stronger and better ; sleeps well ; cough less distressing, and does not keep him awake now. Is able to work at his trade of carpenter again.

CASE III. Arthur M., aged thirty-six. Hereditary.

At Beginning of Treatment.

Weight 114 lbs.

Temp. 99°

Pulse 93.

Respiration ratio 15.

Expectoration copious, hæmoptysis.

Night sweats.

Appetite fair.

Bacilli, Gaffky's scale No. 10.

Cavity right apex and middle lobe.

After eight days' treatment he stated that he was much better. Sleeps better, and never coughed less since he has been sick. He feels quite encouraged. Feels no more pain under his right nipple. At this period he ceased coming for treatment.

CASE IV. Richard M., aged thirty-seven. Hereditary.

At Beginning of Treatment.

Weight 94 1/2 lbs.

Temp. 99°.

Pulse 72.

Respiration ratio 24.

Expectoration copious and hæmoptysis.

Night sweats.

Appetite bad.

Bacilli, Gaffky's scale No. 2.

Cavities both apices, third stage.

End of One Month's Treatment.

Weight 94 1/2 lbs.

Temp. 99°.

Pulse 72.

Respiration ratio normal.

No hæmoptysis, and expectoration decreased.

No night sweats.

Appetite good.

Bacilli, Gaffky's scale No. 1.

Physical signs not much changed.

He tells me that he feels like a different man altogether. Does not feel so sore through his chest, and

has no steady pains as formerly. Is not spitting nearly so much, and has no night sweats now. He sleeps better. He does not cough at all during the night.

CASE V. John M., aged forty-six. No family history.

At Beginning of Treatment.	End of One Month's Treatment.
Weight 130 $\frac{3}{4}$ lbs.	Weight 132 $\frac{1}{2}$ lbs.
Temp. 99°.	Temp. normal.
Pulse 103.	Pulse 74.
Respiration ratio 29.	Respiration ratio normal.
Expectoration copious, brown and green, no hæmoptysis.	Expectoration normal.
Night sweats and chills.	No night sweats.
Appetite fair.	Appetite good.
Bacilli, Gaffky's scale No. 1.	Bacilli, Gaffky's scale No. 1.
Recurrent Pneumonia, right apex crumples, left solidified.	Right apex does not crumple, left respiration partially restored.
Anæmia and debility.	No rales, general condition improved.

He states that he feels better every time he comes. Does not spit at all. No night sweats; appetite good. Is a great deal stronger, and can do many things now which he could not do a month ago. He now feels as if he could work at his trade of marble polisher. His breathing is as good as it was twenty years ago.

CASE VI. James R., aged twenty-six. No family history.

At Beginning of Treatment.

Weight 125 lbs.
 Temp. 99.1°.
 Pulse 130.
 Respiration ratio 21.
 Expectoration copious, yellow.
 Night sweats.
 Appetite poor.
 Bacilli, Gaffky's scale No. 2.
 Cavities both lungs, moist rales, bronchophony, wasting.

End of One Month's Treatment.

Weight 125½ lbs.
 Temp. 99°.
 Pulse 96.
 Respiration ratio normal.
 Expectoration slight.
 No night sweats.
 Appetite good.
 Bacilli, Gaffky's scale No. 1.
 Small improvement in condition of lungs.

He states that his appetite is much improved. Feels considerably better; spits and coughs less. Sleeps all night; has no night sweats at all. Thinks he is improving under the treatment.

CASE VII. Louis S., aged forty-seven. Hereditary.

At Beginning of Treatment.

Weight 134 lbs.
 Temp. 99°.
 Pulse 70.
 Respiration ratio 20.
 Expectoration copious and hæmoptysis.
 No night sweats.
 Appetite fair.
 Bacilli, Gaffky's scale No. 3.
 Cavity left apex back.

End of One Month's Treatment.

Weight 132 lbs.
 Temp 98°.
 Pulse 72.
 Respiration ratio normal.
 Expectoration decreased.
 No night sweats.
 Appetite good.
 Bacilli, Gaffky's scale No. —
 Improvement.

He says that he feels altogether better and stronger. Does not cough or spit so much; says that if it were not for the bad winds, that he would gain flesh, as his appetite is improved.

CASE VIII. Daniel S., aged twenty-five. No family history.

At Beginning of Treatment.

Weight $102\frac{1}{2}$ lbs.
 Temp. 99.2° .
 Pulse 122.
 Respiration ratio 27.
 Expectoration copious.
 Night sweats.
 Appetite poor.
 Bacilli, Gaffky's scale No. 1.
 Cavity right apex.

End of One Month's Treatment.

Weight $102\frac{3}{4}$ lbs.
 Temp. normal.
 Pulse 96.
 Respiration ratio normal.
 Expectoration decreased.
 No night sweats.
 Appetite good.
 Bacilli, Gaffky's scale No. —
 Condition of lung improved.

He states that the night sweats have entirely ceased, that he coughs only in the morning. Sleeps a great deal better; spits only in the morning, and much less, and that his appetite is better. Feels stronger.

CASE IX. Michael M., aged twenty-one. No family history.

At Beginning of Treatment.

Weight $73\frac{1}{2}$ lbs.
 Temp. 99.1° .
 Pulse 114.
 Respiration ratio 21.
 Expectoration copious, yellow.
 No night sweats.
 Appetite fair only.
 Bacilli, Gaffky's scale No. 1.
 Cavity right apex and right base, has had phthisis six years. His breath is most offensive, and suggestive of gangrene of the lungs.

End of One Month's Treatment.

Weight $72\frac{1}{2}$ lbs.
 Temp. normal.
 Pulse 104.
 Respiration ratio normal.
 Expectoration less and lighter color.
 No night sweats.
 Appetite good.
 Bacilli, Gaffky's scale No. —
 Left lung good, right about as before, but nothing more. General condition better. The fetor of his breath has materially decreased.

He says that he feels better, and that his friends say that he is looking much better. Sleeps well and coughs less.

CASE X. Patrick McG., aged thirty-seven. No family history.

At Beginning of Treatment.	End of One Month's Treatment.
Weight 136 lbs.	Weight 139 lbs.
Temp. 98.3°.	Temp. normal.
Pulse 84.	Pulse 72.
Respiration ratio 40.	Respiration ratio normal.
Expectoration copious, thick, bloody.	Expectoration decreased and no hæmoptysis.
Night sweats none, sweats during day.	No sweats.
Appetite poor.	Appetite good.
Bacilli, Gaffky's scale No. 1.	Bacilli, Gaffky's scale No. —
Cavity left base, front and back.	Improved condition of lung.

He tells me that he does not spit so much at the present time in one month as what he spat in a day before beginning the treatment ; does not spit blood now. Appetite is very good, would not wish it to be better. Strength is much improved, and can work as well as ever he could ; is a mechanic.

In an article dated May 14, 1887, which appeared in the *Journal of the American Medical Association*, a captious criticism is made, not upon the "Bergeon's Method of treating Phthisis," as it is headed, but dwelling mainly upon the American method of preparing the gases. Nothing is said to the manner in which results good, bad or indifferent were obtained, but much ado is made as to the quantity of gases C O^2 and $\text{H}^2 \text{S}$ used. As I have given over 600 injections I believe that I am privileged to say with a certain amount of positiveness, that it is not of the slightest consequence as to the mode of preparation of the C O^2 , enough should be given to carry sufficient $\text{H}^2 \text{S}$ into the economy to show the reaction within

five to fifteen minutes from the time of administration. If the quantity is gauged in accordance with the capacity of the patient's bowels, no colic will ensue ; when colic occurs it is due to mechanical distension of the bowels. The rules for the application of this system have been plainly laid down by Bergeon and Morel, and when faithfully followed, as described by them,² equal satisfactory results may confidently be anticipated, but not so when the apparatus, quality, etc., of gases have been garbled. In conclusion, let me say that this being but a preliminary series of observations, it might be going too far to agree with Bergeon, that this system alone is curative, but on the other hand, what the possibilities of its value are as an adjunct to the usual treatment of phthisis, may be seen from the beneficial results obtained, as shown in the above cases.

² Nouveau traitement des affections des Voies Respiratoires et des Intoxications du Sang par les injections gazeuses d'après la Méthode du Dr. L. Bergeon.—Paris, 1886.

